

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1-27 (Canceled).

28. (Currently Amended) A fine metal structure having its surface furnished with microprojections, characterized in that the thickness or equivalent diameter of the microprojections ranges from 10 nanometers to 10 micrometers, that the ratio of ~~the equivalent diameter (D) to the height (H)~~ to the equivalent diameter (D) of the microprojections, H/D , is greater than 1, and that the microprojections are made of an alloy containing a nonmetallic element as an accessory constituent and have at least part of their surfaces coated with a molecular electroless plating catalyst layer.

29. (Previously Presented) The fine metal structure according to Claim 28 wherein the nonmetallic element is boron.

30. (Previously Presented) The fine metal structure according to Claim 28 wherein at least part of the surface of each microprojection is coated with at least one layer of coating.

31. (Previously Presented) The fine metal structure according to Claim 28 wherein at least one type of organic material selected from the group consisting of antigens, antibodies, proteins, bases, sugar chains and surface modifiers is fixed directly or indirectly to the surface of each microprojection.

32. (Previously Presented) A fine metal structure having its surface furnished with microprojections, characterized in that at least part of the surface of each microprojection is coated with at least one layer of coating having a different composition from that of the microprojections.

33. (Previously Presented) The fine metal structure according to Claim

32, said structure having a portion where the thickness or equivalent diameter of the microprojections is from 10 nanometers to 10 micrometers.

34. (Previously Presented) The fine metal structure according to Claim 32 wherein the ratio of the equivalent diameter (D) of microprojections to their height (H), H/D , is greater than 1.

35. (Previously Presented) The fine metal structure according to Claim 32 wherein the microprojections are made of an alloy containing a nonmetallic element as an accessory constituent.

36. (Previously Presented) The fine metal structure according to Claim 32 wherein at least one organic material selected from the group consisting of antigens, antibodies, proteins, bases, sugar chains and surface modifiers is fixed to the surface of the coating layer.

37. (Previously Presented) The fine metal structure according to Claim 32 wherein the material composing the coating layer is gold.

38. (Withdrawn) A process for producing a fine metal structure, which comprises providing a substrate having a fine rugged pattern on its surface, applying a molecular electroless plating catalyst to the substrate surface, thereafter carrying out electroless plating to thereby form a metal layer having the rugged pattern filled, and detaching the metal layer from the substrate to thereby obtain a fine metal structure furnished with a surface having undergone reversal transfer of the rugged pattern.

39. (Withdrawn and Currently Amended) ~~A-The~~ process for producing a fine metal structure characterized in that after producing a fine metal structure according to the method of Claim 38, at least one coating layer composed of a different composition from that of said fine metal structure is formed on the surface of said fine metal structure.

40. (Withdrawn and Currently Amended) ~~A-The~~ process for producing a fine metal structure characterized in that after producing a fine metal structure

according to the process of Claim 38, at least one organic material selected from the group consisting of antigens, antibodies, proteins, bases, sugar chains and surface modifiers is fixed at least at a part of said gold coating surface.

41. (Withdrawn and Currently Amended) The process according to Claim 38, wherein the rugged surface configuration of said fine structure is at least partly constituted by columnar microprojections, with the diameter or the length of one side thereof being 10 nanometers to 10 micrometers, and the ratio of their height (H) to their diameter or length of one side (~~D~~) ~~to their height (H)~~, H/D , is greater than 1.

42. (Withdrawn) A metal mold used for pressure molding of resins and inorganic materials, characterized in that the surface of the mold is constituted by the fine metal structure set forth in Claim 28.

43. (Withdrawn) A nanoimprinter in which resins or inorganic materials are pressure molded by using a fine metal mold, characterized in that the surface of said fine metal mold is constituted by the fine metal structure set forth in Claim 28.

44. (Withdrawn and Currently Amended) An electrode for converting, producing or detecting the materials by an electrochemical reaction, characterized in that at least part of the surface of the electrode is constituted by the fine metal ~~structure~~ structure set forth in Claim 28.

45. (Previously Presented) A microchip having a fine rugged configuration at the specimen detecting section, characterized in that the fine metal structure set forth in Claim 28 is used for the detecting section.

46. (Previously Presented) A microchip in which a material interacting with the specimen is fixed to the surface of a substrate, characterized in that the fine metal structure set forth in Claim 28 is used as said substrate.

47. (Previously Presented) A DNA chip having multiple types of DNA fixed to the substrate surface, characterized in that the fine metal structure set forth in Claim 28 is used as the substrate.

48. (New) The process according to claim 28, wherein the molecular electroless plating catalyst comprises a catalyst dissolved in a solution in a state of a complex or a salt.

49. (New) The fine metal structure produced by the process of claim 49.